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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,872	09/30/2005	Akihiro Ohashi	20570/0203313-US0	2013
7278	7590	10/14/2008	EXAMINER	
DARBY & DARBY P.C.			TAYLOR II, JAMES W	
P.O. BOX 770			ART UNIT	PAPER NUMBER
Church Street Station				1796
New York, NY 10008-0770				
			MAIL DATE	DELIVERY MODE
			10/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,872	OHASHI ET AL.	
	Examiner	Art Unit	
	James W. Taylor II	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 July 2008.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-6 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-6 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 30 September 2005 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

1. All outstanding objections and rejections, except those maintained below, are withdrawn in light of applicant's amendment and arguments filed on 7/23/2008.
2. The text of those sections of Title 35 U.S. Code not included in this office action can be found in a prior office action.
3. The new grounds of rejection set forth below are necessitated by amendment, and therefore this rejection is properly made FINAL.

Claim Rejections - 35 USC § 112

4. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
5. The specification does not disclose how the applicant has placed Na₂O on the surface of the particles in the claims. “[T]he essential goal” of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed.” *In re Barker*, 559 F.2d 588, 592 n.4, 194 USPQ 470, 473 n.4 (CCPA 1977). “The written description’s requirement implements the principle that a patent must describe the technology that is sought to be patented; the requirement serves both to satisfy the inventor’s obligation to disclose the technologic

knowledge upon which the patent is based, and to demonstrate that the patentee was in possession of the invention that is claimed." *Capon v. Eshhar*, 418 F.3d 1349, 1357, 76 USPQ2d 1078, 1084 (Fed. Cir. 2005). See MPEP 2163.04.

6. The specification fails to disclose how the applicant is provided the metal hydroxide particles with Na_2O . One of ordinary skill in the art would expect that Na_2O is highly reactive given the electronegativity of oxygen and the low ionization energy of sodium. Therefore, one would expect that there would be complications for traditional coating techniques, such as sputtering, chemical vapor deposition, *et cetera*. Therefore, traditional coating techniques would not necessarily work. Further, the examiner was unable to find any comparable art for coating metal hydroxides with Na_2O . While this is the reason that no prior rejection is set forth, nevertheless, in light of the above discussion it is apparent that the claims and the supporting specification are not in compliance with the written description portion of the 1st paragraph of 35 USC 112. Therefore, until this issue is resolved the claims are barred from patentability.

7. For at least the reasons discussed in the preceding paragraph, one of ordinary skill in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed.

8. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

9. To be enabling, the specification must teach one of ordinary skill in the art to make and use the full scope of the claimed invention without “undue experimentation.”

In re Wright, 999 F.2d 1557; 27 USPQ 2d 1510 (Fed. Cir. 1993). There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is “undue.” These factors include, but are not limited to: (A) the breadth of the claims; (B) the nature of the invention; (C) the state of the prior art; (D) the level of one of ordinary skill; (E) the level of predictability in the art; (F) the amount of direction provided by the inventor; (G) the existence of working examples; and (H) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). See MPEP 2164.01.

10. The office will address several of the Wands factors in relation to the Na₂O coated metal hydroxide, which is the unenabled component of the composition.

11. The state of the prior art: surface coatings are known in the art. However, for at least the reasons disclosed above in par. 6, the state of the art regarding coating other relatively inert compounds will not predict a sufficient coating method for Na₂O.

12. The level of one of ordinary skill: the level of skill in the art is high. However, for at least the reasons disclosed above in par. 6, one of ordinary skill in the art would be relegated to trial an error to reduce the instant invention to practice.

13. The predictability or unpredictability of the art: because of the unusual and application and chemistry of Na₂O relative to standard filler coatings, the office takes the position that this section of the art would be highly unpredictable. Therefore, a reasonable chance of success would not necessarily be expected using standard coating techniques.

14. The amount of direction or guidance presented: although the application pointed to techniques to coat fatty residues and capatibilizing agents on the filler (p. 8, ll. 7-20), the examiner was unable to find any guidance as to how the Na₂O could be coated onto the particles in the instant specification.

15. The quantity of experimentation needed: for the reasons presented above in pars. 6 and 11-14, the office takes the position that a significant amount of experimentation would be necessarily to practice the invention. Specifically, the office takes the position that undue experimentation would be necessary.

Response to Arguments

16. Applicant's arguments filed 7/23/2008 regarding claims 1-5's rejection under 35 USC 112, 1st for a lack of enablement have been fully considered but they are not persuasive.

17. The applicant argues that (a) the state of the prior art is advanced, (b) the state of the prior art is high, (c) the art is predictable, (d) the specification gives acceptable direction, and (e) the quantity of experimentation needed to practice the invention is little.

18. Regarding all of the aforementioned arguments, the office disagrees with the applicant and takes the position for at least the reasons presented above in pars. 11-14, ultimately there was not enough guidance for one of ordinary skill in the art at the time of the invention to practice the invention based upon the Wands factors.

19. Regarding arguments (a) and (b), the applicant references the instant specification p. 7, ll. 7-19 as guidance for why one of ordinary skill in the art would be able to practice the invention. The office notes that the instant specification p. 7, ll. 7-19 is a characterization method for calculating the amount of Na₂O on the surface of the metal hydroxide. However, this does not state or imply a method to put Na₂O on the surface of the particle. The applicant further states that there are different methods of surface treatment that can be used to apply the treatment of the invention. However, due to no specific citations or references, the office must conclude this is merely speculative. Further, the office notes the only place in the specification found that discloses surface-treatments is for treating the particle with a higher fatty acid, silane coupling agent, etc. (specification, p. 8, ll. 7-20). Further, the applicant notes that the statements the state of the art is advanced and the relative skill in the art is high are conclusive and speculative.

20. Regarding argument (c), the office agrees that surface-treated metal oxides for biodegradable resins are currently being developed. However, the unenabling feature is coating the Na₂O, which would be unpredictable as discussed in par. 6.

21. Regarding argument (d), the applicant argues that merely stating the surface is coated is sufficient guidance. For the reasons presented above in par. 6, the office disagrees.

22. Regarding argument (e), the office concludes based upon the discussion directly above that undue experimentation is still necessary to practice the claimed invention. Therefore, the applicant's arguments are unpersuasive. Further, the rejection is maintained.

23. Applicant's arguments filed 7/23/2008 regarding new claim 6's rejection under 35 USC 112, 2nd for failing to distinctly and definitely claim have been fully considered and are found persuasive. Therefore, the rejection is withdrawn in light of the applicant's arguments.

Additional Information

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

25. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Taylor II whose telephone number is (571) 270-5457. The examiner can normally be reached on 7:30 am to 5:00 pm (off every other Friday).

27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

28. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James W Taylor II/
Examiner, Art Unit 1796

jwt2

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796